

**INVASIVE PLANT  
SURVEY & REPORT**

at

**Vanguard  
Spa Fields Industrial Estate  
Huddersfield  
West Yorkshire  
HD7 5BB**

**Client:**

**D M Textile Machinery Ltd**

**Client Address:**

**Brooks Mill  
Clay Lane  
Slaithwaite  
Huddersfield  
HD7 5BG**

**Client Contact:**

**01484460611 (Tel)**

**JCA Ref:**

**22605/AWe**

**Date of Report:**

**24/01/2025**

**Revised:**

**10/04/25**

**17/03/26**



## Quality Assurance

Site Surveyed:		Report Completed:		Checked:	
Date	Name	Date	Name	Date	Name
17/01/25	Adam West	24/01/25	Adam West	24/01/25	Richard Westwood
		17/03/26	Liz Davies	19/03/26	Adam West

This report has been prepared and provided in accordance with the *British Standard 42020: Biodiversity – Code of practice for planning and development* and the *CIEEM's Code of Professional Conduct*.



## Summary

A report is required at **Vanguard, Spa Fields Industrial Estate** in order to investigate the presence or absence of invasive plant species.

During the site investigation a stand of Japanese knotweed *Falopia japonica* was found within the planning application Red Line Boundary but outside of the legal ownership boundary of DM Textiles. Japanese knotweed was also found to be present on land immediately adjacent to the site's southern boundary.

Complete eradication of this species is to be undertaken by excavating the areas of Japanese knotweed and burying the spoil in a licensed land fill site. The excavated material must be transported as controlled waste and only conveyed by a suitably licenced carrier. JCA Ltd highly recommends that any eradication programme for Japanese knotweed is conducted by a **trained and qualified specialist**.

Japanese knotweed was also identified growing on the canal towpath south of the site, close to the boundary fence. For eradication to be successful, it is imperative that this area also be cleared of Japanese knotweed. Failure to clear this area will eventually result in recolonisation of the site by this species. The landowner of the towpath must be identified and informed of their legal obligation and a coordinated programme for eradication on and off site be devised and undertaken.



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## 1. Introduction

### 1.1 Purpose of the Report

- 1.1.1 A report is required at **Vanguard, Spa Fields Industrial Estate** in order to investigate the presence or absence of invasive plant species, such as Japanese knotweed, Giant Hogweed and Himalayan Balsam on the site.
- 1.1.2 The aim of the report is to determine the scale of the invasion and inform how the proposed development should approach the invasion. This will allow the invasion to be reduced or controlled and have a lower impact on the development and biodiversity in the area.

### 1.2 Terms of Reference

- 1.2.1 JCA Ltd are instructed by **D M Textile Machinery Ltd** to visit the site and prepare findings in a report with regard to Invasive Species presence on site.
- 1.2.2 The report concerns itself only with the land owned by DM Textiles (see Appendix 3) which differs to the planning application Red Line Boundary to be used in the planning application.

### 1.3 Site Description

- 1.3.1 **Vanguard, Spa Fields Industrial Estate** is situated 6.3km southwest of Huddersfield town centre at grid reference: SE 08618 14293
- 1.3.2 The site is situated on the eastern edge of Slaithwaite village and is surrounded predominantly by light industrial premises. Huddersfield Narrow Canal is present just beyond the site's southern boundary.

### 1.4 Details of Proposed Development

- 1.4.1 The development proposed on this site is the construction of a light industrial unit on existing hardstanding.



## 2. Methodology

### 2.1 Site Survey Methodology

2.1.1 The entire site was walked over by an experienced consultant who mapped and described any invasive species that were present. The survey was extended to the canal towpath beyond the site's southern boundary.

### 2.2 Survey Conditions

2.2.1 The site was surveyed on 17/01/25 by Adam West, *BSc (Hons), ACIEEM*, Principal Ecologist, JCA Ltd.

2.2.2 The weather conditions during the site visit were dry and clear with good visibility.

### 2.3 Survey Constraints

2.3.1 Some species, which are more easily identified during spring or early summer due to flowering timings, may not be visible outside of these times. The type of invasive plant species that would be expected to colonise sites of this nature in this landscape context leave characteristic remains from the previous growing season which can be identified by an experienced surveyor. The timing of the survey does not pose a constraint to the validity of the survey.



## 3. Results

### 3.1 Site Survey

- 3.1.1 A map showing the location of the development site and the location of invasive plant species can be found at **Appendix 2**.
- 3.1.2 The following invasive plant species were identified at **Vanguard**: Japanese knotweed. The Japanese knotweed is present within the planning application Red Line Boundary, but not on land owned by DM Textiles, and on the canal towpath to the south of the Red Line Boundary.



## 4. Conclusions and Recommendations

- 4.1.1 An invasive plant species was conducted at the **Vanguard, Spa Fields Industrial Estate** by Adam West, BSc (Hons) on 17/01/25.
- 4.1.2 The following management strategy must be carried out to eradicate the invasive species identified.
- 4.1.3 Japanese Knotweed:
- 4.1.4 Japanese Knotweed has been recorded on the site and is a perennial plant which spreads through its rhizome system within the UK. Rhizome extension is generally limited to a 4m radius from visible above ground plants, and a depth of 2m. However, extension beyond these limits is possible, with a rule of thumb for estimating potential rhizome growth as 7m outwards and 3m down. This is not statistically robust but does provide a reliable 'safe distance' from the Japanese knotweed.
- 4.1.5 The underground rhizome of this species can penetrate loose aggregate and grow through existing small cracks, openings or voids in asphalt/concrete. The underground structures of Japanese Knotweed rhizome can slowly increase in volume over time and ultimately impact built structures, typically in the form of exacerbating existing weakness or damage. The fast vertical growth rate allows Japanese knotweed to outcompete much of the native vegetation in the UK, and there are no natural enemies of Japanese knotweed in the UK.
- 4.1.6 Japanese knotweed extends to a height of 3metres. It has shield-shaped leaves which are flat at the base and are carried on zigzagged stems, which are sturdy, purple spotted, hollow and bamboo like with regular spaced nodes. The flowers (only female in UK and Ireland) which appear in the late summer or early autumn are creamy white coloured, and are formed in drooping clusters approximately 8 to 12cm in length. In spring emerging stems are green to red/purple with rolled leaves that unfurl as the shoots extend. At the end of the year the stems persist and turn various shades of brown with an orange tinge.
- 4.1.7 The rhizome is dark brown and slightly leathery. It is brittle when fresh and snaps like a carrot, with a musty smell. The interior is orange-yellow colour, generally darker towards the centre. Lines often radiate from the centre.
- 4.1.8 Japanese knotweed can spread through direct rhizome (root) growth, and new plant growth from the parent plant's stem and rhizome fragment – a new plant can grow from pieces of rhizome as small as 1cm.
- 4.1.9 Site distribution
- 4.1.10 During the site investigation a stand of Japanese knotweed was found within the planning application Red Line Boundary but outside of the legal ownership boundary of DM Textiles.
- 4.1.11 Off-site distribution
- 4.1.12 Japanese knotweed was also identified growing on the canal towpath south of the site, close to the boundary fence. The extent of the infestation on the towpath could not be determined as the area showed signs of recent vegetation clearance. For eradication to be successful, it is imperative that this area also be cleared of Japanese



knotweed. Failure to clear this area will eventually result in recolonisation of the site by this species.

4.1.13 The landowners of the areas where Japanese knotweed has been identified have a legal obligation to ensure that this species does not spread from their land and would be legally and financially responsible were this to happen. The landowners must be identified and informed of their legal obligation and a coordinated programme for eradication on and off site be devised and undertaken.

#### 4.1.14 Control methods

4.1.15 The choice of control options has been provided based on the proximity of the site to local watercourses, including a canal and the River Colne. The methods of control detailed by a specially trained and qualified specialist could include:

- Herbicide treatment – applying herbicide to Japanese knotweed in situ.
- Stockpiling/bunding: excavation and movement of Japanese knotweed material to an area of the site where it will not be disturbed. Creation of a bund and subsequent herbicide treatment.
- Screening/sifting: excavation of Japanese knotweed material and screening (sieving) the material through a mesh or other selective system to remove rhizome fragments, which are then disposed of correctly and safely.
- Rhizome fragmentation and cultivation: digging and breaking up rhizome material and soil with the aim of increasing the leaf surface area to rhizome volume ratio and to un-compact, disturb and aerate the soil. Crown removal can be integrated into such work. The subsequent Japanese knotweed growth is then treated with herbicide.
- Burial on-site: excavation of Japanese knotweed material with burial at another part of the site at an appropriate depth to prevent regrowth. Monitoring of the area will still be required, and any regrowth treated with herbicide.
- Root barrier membrane: prevention of horizontal and vertical growth of Japanese knotweed by installing a vertical and/or horizontal membrane barrier. Monitoring of the area will still be required for at least two growing seasons, and any regrowth treated with herbicide.
- Removal to landfill: excavation and transport of Japanese knotweed material to a licenced landfill, using haulage vehicles. Monitoring of the area will still be required, and, although all rhizome material should have been removed, any regrowth treated with herbicide. All waste which may contain Japanese knotweed fragments is considered controlled waste, and must be treated accordingly.

#### 4.1.16 Treatment plan

4.1.17 Factors to consider when forming the treatment plan are:

- The timeframe in which the works need to be completed
- The suitability of different treatment options



- Structural or environmental features which might affect control action, e.g. presence of watercourses
- Future plans for development on the site
- Hazards or risks identified during the site inspection, such as underground services and chemical contamination.

#### 4.1.18 During construction:

4.1.19 Immediately before construction begins an updated map of the exact locations of Japanese knotweed on site will be created, to ensure all areas are mapped and correctly identified to ensure control measures are implemented correctly.

4.1.20 It is recommended that a combination of root barrier method of control, and either stockpiling or removal to landfill are used to manage the Japanese knotweed on site to ensure the proposed development can commence within a reasonable timescale. These measures should be implemented by a specialist Japanese knotweed contractor.

4.1.21 Biosecurity measures must be implemented to ensure that any soil or other material which could contain Japanese knotweed plant material is not moved around the site, or offsite, unless as part of a specific control action. This includes preventing heavy plant or other vehicles from tracking over areas which are known to be infested with Japanese knotweed, unless supervised and suitable precautions are taken to prevent the spread of plant fragments.

4.1.22 The spread of plant fragments will be prevented by ensuring all vehicles, equipment, footwear and clothes are free of plant fragments before leaving the site, or a designated control area within the site. Records should be kept of the biosecurity inspections and/or measures. During earthworks site operatives are to receive a toolbox talk on Japanese knotweed identification and the best practices for the avoidance of spreading.

4.1.23 Vehicles will be checked for mud, debris and vegetation prior to leaving the site and washed if required, with careful management of run-off to avoid spread of floating seeds.

#### 4.1.24 Monitoring

4.1.25 Monitoring with follow up treatment of areas within the red line boundary of the site will be maintained until at least two years have passed with no Japanese Knotweed plants present within the red line boundary of the site.

4.1.26 The period of monitoring is March – October, with Spring monitoring essential from when the red-purple shoots emerge from the ground, growing rapidly at up to 10cm a day.

4.1.27 Japanese Knotweed waste management will be completed in line with Treatment and disposal of invasive non-native plants: RPS 178.



## 5. References

### Guidelines for surveys and report writing:

British Standards Institute (BSI), (2013) *BS 42020:2013, Biodiversity - Code of practice for planning and development*. London.

Chartered Institute of Ecology and Environmental Management (CIEEM), (2015) *Guidelines for Ecological Report Writing*. Winchester.

Joint Nature Conservation Committee (JNCC), (2010) *Handbook for Phase 1 habitat survey: A technique for environmental audit*.

### Invasive Species:

British Standards Institute (BSI), (2015) *BS 3882:2015, Biodiversity Specification for topsoil*. London.

Department for Environment, Food & Rural Affairs, (2015) *Species Control Provisions: Draft Code of Practice for England*.

Environment Agency, (2013). Bristol: Environment Agency.

*GB non-native species secretariat* (2016) *Nonnativespecies.org*. Available at: <http://www.nonnativespecies.org/home/index.cfm> (Accessed: 22 September 2016).

*Plantlife* (2016) *Plantlife.org.uk*. Available at: <http://www.plantlife.org.uk/> (Accessed: 22 September 2016).

*Prevent harmful weeds and invasive non-native plants spreading - Detailed guidance* (2014) *Gov.uk*. Available at: <https://www.gov.uk/guidance/prevent-the-spread-of-harmful-invasive-and-non-native-plants> (Accessed: 22 September 2016).

### Relevant Legislation:

*Environmental Protection Act 1990* (c.43) Available at: <http://www.legislation.gov.uk/ukpga/1990/43> (Accessed: 22 September 2016)

*EU Invasive Alien Species Regulation* (No. 1143/2014) Available at: [http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AJOL\\_2014\\_317\\_R\\_0003](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ%3AJOL_2014_317_R_0003) (Accessed: 22 September 2016)

*Wildlife and Countryside Act 1981*, (c. 69) (as amended). Available at: <http://www.legislation.gov.uk/ukpga/1981/69> (Accessed: 22 September 2016)



# Appendices



## Appendix 1: Non-native Invasive Species

**Table 2:** Invasive species listed in Part II, Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) for England and Wales.

Common Name	Scientific Name	Common Name	Scientific Name
Few-flowered Leek	<i>Allium paradoxum</i>	Floating Water Primrose	<i>Ludwigia peploides</i>
Three-cornered Garlic	<i>Allium triquetrum</i>	Water Primrose	<i>Ludwigia grandiflora</i>
Hooked Asparagus Seaweed	<i>Asparagopsis armata</i>	Water Primrose	<i>Ludwigia uruguayensis</i>
Water Fern	<i>Azolla filiculoides</i>	Giant Kelp	<i>Macrocystis angustifolia</i>
Fanwort	<i>Cabomba caroliniana</i>	Giant Kelp	<i>Macrocystis integrifolia</i>
Hottentot Fig	<i>Carpobrotus edulis</i>	Giant Kelp	<i>Macrocystis laevis</i>
Green Seafingers	<i>Codium fragile</i>	Giant Kelp	<i>Macrocystis pyrifera</i>
Green Seafingers	<i>Codium fragile tomentosoides</i>	Parrot's Feather	<i>Myriophyllum aquaticum</i>
Hollyberry Cotoneaster	<i>Cotoneaster bullatus</i>	Laver Seaweeds (except native species)	<i>Porphyra</i> spp.except: <i>P. amethystea</i> <i>P. leucosticta</i> <i>P. linearis</i> <i>P. miniata</i> <i>P. purpurea</i> <i>P. umbilicalis</i>
Cotoneaster	<i>Cotoneaster horizontalis</i>		
Entire-leaved Cotoneaster	<i>Cotoneaster integrifolius</i>		
Small-leaved Cotoneaster	<i>Cotoneaster microphyllus</i>		
Himalayan Cotoneaster	<i>Cotoneaster simonsii</i>		
New Zealand Pygmyweed	<i>Crassula helmsii</i>		
Montbretia	<i>Crocasmia x crocosmiiflora</i>	False Virginia Creeper	<i>Parthenocissus inserta</i>
Purple Dewplant	<i>Disphyma crassifolium</i>	Virginia Creeper	<i>Parthenocissus quinquefolia</i>
Water Hyacinth	<i>Eichhornia crassipes</i>	Californian Red Seaweed	<i>Pikea californica</i>
Waterweeds	<i>Elodea sp.</i>	Water Lettuce	<i>Pistia stratiotes</i>
Japanese Knotweed	<i>Fallopia japonica</i>	Japanese Knotweed	<i>Polygonum cuspidatum</i>
Hybrid Knotweed	<i>Fallopia japonica x F. sachalinensis</i>	Rhododendron	<i>R. ponticum x R. maximum</i>
Giant Knotweed	<i>Fallopia sachalinensis</i>	Yellow Azalea	<i>Rhododendron luteum</i>
Shallon	<i>Gaultheria shallon</i>	Rhododendron	<i>Rhododendron ponticum</i>
Red Algae	<i>Grateloupia luxurians</i>	False-acacia	<i>Robinia pseudoacacia</i>
Giant Rhubarb	<i>Gunnera tinctoria</i>	Japanese Rose	<i>Rosa rugosa</i>
Giant Hogweed	<i>Heracleum mantegazzianum</i>	Duck Potato	<i>Sagittaria latifolia</i>
Floating Pennywort	<i>Hydrocotyle ranunculoides</i>	Giant Seafingers	<i>Salvinia molesta</i>
Himalayan Balsam	<i>Impatiens glandulifera</i>	Japanese Seaweed	<i>Sargassum multicum</i>
Curly Waterweed	<i>Lagarosiphon major</i>	Perfoliate Alexanders	<i>Smyrniium perfoliatum</i>
Variegate Yellow Archangel	<i>Lamiastrum galeobdolon subsp. Argentatum</i>	Wakame	<i>Undaria pinnatifida</i>
Japanese Kelp	<i>Laminaria japonica</i>		



**Table 3:** Invasive non-native species subject to restrictions set out in Article 7 of the EU Invasive Alien Species Regulations.

<b>Common Name</b>	<b>Scientific Name</b>	<b>Common Name</b>	<b>Scientific Name</b>
Eastern Baccharis	<i>Baccharis halimifolia</i>	Water Primrose*	<i>Ludwigia grandiflora</i>
Green Combomba*	<i>Cabomba caroliniana</i>	Creeping Water-primrose*	<i>Ludwigia peploides</i>
Water Hyacinth*	<i>Eichhornia crassipes</i>	American Skunk Cabbage*	<i>Lysichiton americanus</i>
Persian Hogweed	<i>Heracleum persicum</i>	Parrot's Feather* Whitetop Weed	<i>Myriophyllum aquaticum</i>
Sosnowskyi's Hogweed	<i>Heracleum sosnowskyi</i>		<i>Parthenium hysterophorus</i>
Floating Pennywort*	<i>Hydrocotyle ranunculoides</i>	Asiatic Tearthumb	<i>Persicaria perfoliata</i>

\* denotes species are those found growing in the UK. The remaining species are rarely found.



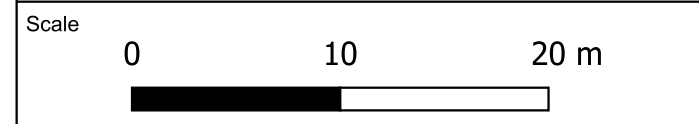
## **Appendix 2: Site Location and Invasive Plants Plan**





Site name & address  
**Vanguard, Spa Fields Industrial Estate, Slaithwaite, Huddersfield, HD7 5BG**

- Key**
- Japanese Knotweed (Off Site)
  - ▨ Japanese Knotweed
  - ▨ DM Textile Ownership
  - ▭ Red Line Boundary



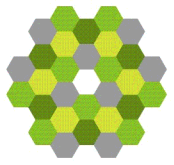
Site Vanguard	Client DM Textile Machinery Ltd
Project Invasive Non-native Species Survey	Author AWe
Plan ref 22605	Revision 0

## **Appendix 3: DM Textile Title Plan**

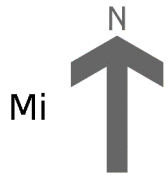
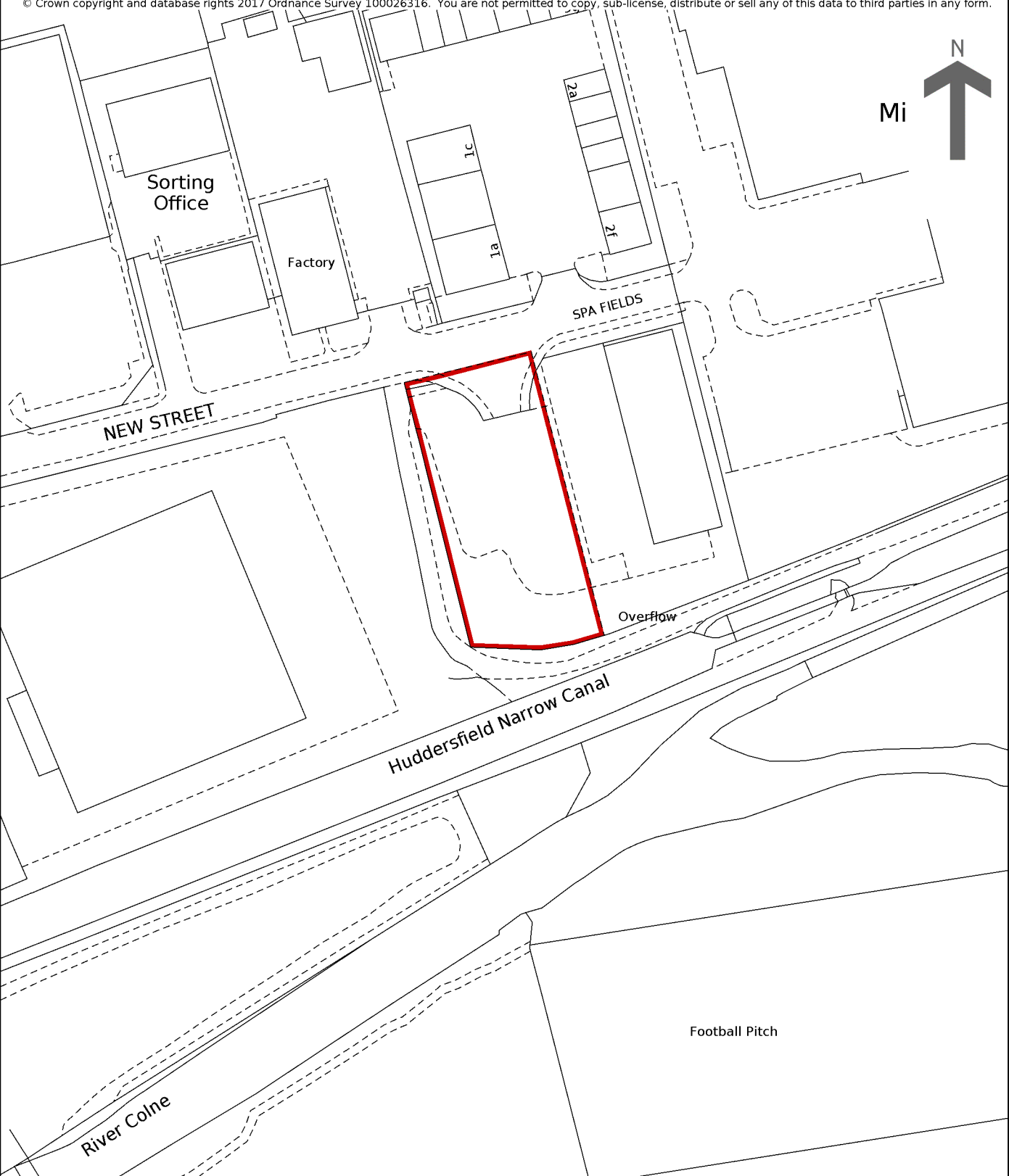


# HM Land Registry Official copy of title plan

Title number **YY88793**  
Ordnance Survey map reference **SE0814SE**  
Scale **1:1250 enlarged from 1:2500**  
Administrative area **West Yorkshire :**  
**Kirklees**



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## Appendix 4: Photographic Evidence



**Photo 1:** View across the site from the north.





**Photo 2:** Japanese knotweed in the south of the site.





**Photo 3:** Japanese knotweed in the south of the site.





**Photo 4:** Japanese knotweed on the towpath to the south of the site.



I hope that this report provides all the necessary information, but should any further advice  
be needed please do not hesitate to contact the author.

Signed



.....

Adam West, Principal Ecologist *BSc (Hons) Animal and Wildlife Management,*  
*ACIEEM.*

24/01/2025

Reviewed by



.....

Richard Westwood

24/01/2025

For and on behalf of **JCA Ltd**

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## ECOLOGICAL SERVICES

### Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes
- Butterfly & Insect Surveys

### Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)
- Planting Schemes
- Monitoring of bird or bat boxes.

## ARBORICULTURAL SERVICES

### Guidance for Architects & Developers

- British Standard 5837 Surveys
- Arboricultural Implications Assessments (AIA)
- Arboricultural Method Statements (AMS)

### Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

### Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

### Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

### Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

### Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control



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